CLAIMS:

1. A method of determining sub-pixel sample positions for a pixel position to reducing aliasing, comprising:

reading a programmed first sub-pixel offset value;

reading a programmed second sub-pixel offset value; and

computing a jittered sub-pixel sample position using the first sub-pixel offset value, the second sub-pixel offset value, and the pixel position.

2. The method of claim 1, wherein the reading of the programmed first sub-pixel offset value is partially based on at least a portion of the pixel position.

3. The method of claim 1, wherein the reading of the programmed second sub-pixel offset value is partially based on at least a portion of the pixel position.

4. The method of claim 1, wherein the steps of reading a first sub-pixel offset value, reading a second sub-pixel offset value, and computing are repeated to produce at least one additional jittered sub-pixel sample position.

5. The method of claim 1, further comprising:

computing a depth value of a fragment for each jittered sub-pixel sample position.

6. The method of claim 1, further comprising:

determining sub-pixel sample coverage for a fragment associated with the pixel position.

7. The method of claim 1, further comprising:

computing a color value of a fragment.

8. The method of claim 7, wherein the color value of a fragment is computed at a sub-pixel position within a pixel boundary.

9. The method of claim 7, wherein the color value of a fragment is computed at a pixel position within a pixel boundary.

10. The method of claim 1, further comprising:

computing a color value of a fragment for each jittered sub-pixel sample position.

11. A programmable sample generation unit, comprising:

a storage element configured to store programmed sub-pixel offset values;

an offset access unit coupled to the storage element, the offset access unit configured to read a portion of the sub-pixel offset values; and

a sample computation unit configured to combine a pixel position and the portion of the sub-pixel offset values to produce at least two sub-pixel sample positions.

12. The programmable sample generation unit of claim 11, wherein the offset access unit reads the portion of the sub-pixel offset values using at least a portion of the pixel position.

13. The programmable sample generation unit of claim 11, wherein the storage element contains a prime number of sub-pixel offset values.

14. The programmable sample generation unit of claim 11, wherein the storage element contains an odd number of sub-pixel offset values.

15. The programmable sample generation unit of claim 11, wherein the at least two sub-pixel sample positions are within the boundary of a pixel associated with the pixel position.

16. A programmable graphics processor for generating antialiased images, comprising:

a rasterizer configured to produce sub-pixel coverage data associated with a fragment using programmed jittered sub-pixel sample positions;

a shader configured to compute a depth value corresponding to the fragment depth at a pixel position; and

a raster operations unit configured to produce sub-pixel depth values using the depth value corresponding to the fragment depth at a pixel position and the programmed jittered sub-pixel sample positions.

17. The programmable graphics processor of claim 16, wherein the raster operations unit is configured to process the sub-pixel depth values within the fragment as indicated by the sub-pixel coverage data.

18. The programmable graphics processor of claim 16, wherein the shader is configured to compute a color value corresponding to the fragment.

19. The programmable graphics processor of claim 18, wherein the color value corresponds to the fragment color at the pixel position.

20. The programmable graphics processor of claim 18, wherein the color value corresponds to the fragment color at a pixel position within the fragment.